

REMARKS/ARGUMENTS

Claims 1 and 12 are amended. Claims 4 and 16 are canceled. Claims 1-3, 5-15 and 17-22 remain in the application.

Applicant hereby requests further examination and reconsideration of the application in view of the foregoing amendments and discussion below.

Independent claims 1 and 12 are amended for clarification and so as to incorporate the elements of canceled claims 4 and 16, respectively. Claims 1 and 12 are further amended to recite a memory storage device for keeping a record of whether an intermediate stage of brake lining or a stage of brake lining wear beyond the intermediate stage have been exceeded. Support for this amendment can be found, for example, at paragraphs [0005], [0006], [0010], [0020] and [0022].

Claim 12 is also amended to replace "brakable axle including wheels" with -axle including wheels which can be braked-. This overcomes the examiner's objection to the use of the word "brakable" in claim 12.

The examiner rejected claims 1-22 of the application under 35 USC §103(a) as unpatentable over U.S. Patent No. 5,285,190 to Humphreys et al. in view of U.S. Patent No. 6,471,015 to Ralea et al. The examiner states that Humphreys et al. shows a braking system comprising wear detectors for the wheels of a vehicle and a display system that shows the amount of wear on each wheel, citing FIG. 4 of Humphreys et al. The examiner indicates that he believes the claimed invention differs from Humphreys et al. only in the inclusion of a memory storage medium. The examiner states that Ralea et al. shows a wear monitoring system for brakes including the storage of the wear signals, citing column 6, lines 55 et seq. The examiner concludes it would have been obvious to one of ordinary skill in the art to have included a memory storage in the BCU of Humphreys et al. in view of the teaching of Ralea et al. so as to more accurately monitor brake wear characteristics as taught by Ralea et al.

The Applicant respectfully submits that independent claims 1 and 12 patentably distinguish from the above references. Claims 1 and 12, as amended, recite, *inter alia*, a vehicle and an apparatus for displaying the state of wear of a brake lining on the vehicle, including an electronic control/evaluation system which evaluates signals from a wear sensor and provides a signal to the display device for generating a visual signal. The electronic control/evaluation system signals a display device to provide a plurality of visual signals comprising a first visual signal when the wear sensor senses an intermediate stage of brake lining wear and a second visual signal when the wear sensor senses a stage of brake lining wear beyond the intermediate stage. Claims 1 and 12 also recite a memory storage device for keeping a record of whether the intermediate stage of brake lining wear or the state of brake lining wear beyond the intermediate stage have been exceeded. These features, with their significant, nonobvious advantages over the prior art, are neither taught nor suggested by the references cited by the examiner.

Humphreys et al. is directed to an automatic slack adjuster, which automatically adjusts brakes, and incorporates a monitoring system that monitors the operation and adjustment of air-powered brakes as used on vehicles. Humphreys et al. describes a braking system having detectors for the wheels of a vehicle and a display system that shows the amount of wear on each wheel.

Ralea et al. is directed to an electronic aircraft braking system with brake wear measurement, running clearance adjustment and plural electric motor-actuator RAM assemblies. As noted above, the examiner cited Ralea et al. at column 6, lines 55 et seq., which describes temporary data storage and a non-volatile data storage.

Neither Humphreys et al. nor Ralea et al. discloses Applicant's claimed "electronic control/evaluation system" and "electrical connecting device" for connecting a brake wear sensor to the electronic control/evaluation system. In fact, the Office Action is silent regarding these features.

Humphreys et al. and Ralea et al. also fail to suggest a corresponding visual display as soon as an intermediate wear stage is reached, as presently claimed. This feature contributes significantly to the goal of ensuring that a vehicle user is informed that there remains a predetermined running capacity before the braking linings have to be replaced. (See the specification at page 2, para. [0008]). The prior art fails to recognize and thus realize the advantages which the Applicant has achieved with his invention by providing this intermediate stage visual display. If this feature were indeed obvious, it would have been disclosed in at least one of the references relied upon by the Examiner.

Further, the prior art does not suggest the presently claimed memory storage device for keeping a record of whether an intermediate stage of brake lining wear or the state of brake lining wear beyond the intermediate stage have been exceeded. This feature allows a workshop to ensure that the vehicle user has operated under allowed brake conditions with sufficient brake pad.

Claims 2, 3, 5-11, 13-15 and 17-22 of the present application all depend from claims 1 and 12. In addition to the distinguishing features recited in claims 1 and 12 and discussed above, the dependent claims of the present invention have additional advantageous features defined in the claims which further distinguish the present invention over the prior art. For example, claim 21 defines the feature of combining the brake lining wear state information with the odometer reading of the vehicle and storing it. This feature enables a user to follow precisely the service life of a brake lining. (See the specification at page 2, para. [0010]). The patents to Humphreys et al. and Ralea et al. do not disclose or suggest this feature with its many advantages.

For the foregoing reasons, the Applicant respectfully submits that the apparatus and vehicle for displaying brake wear as claimed in the present application are not anticipated nor fairly taught or suggested by any of the references cited by the examiner, either alone or in any reasonable combination suggested by the prior art. Reconsideration and withdrawal of the rejections and allowance of claims 1-3, 5-15 and 17-22 at an early date are respectfully requested.

If the Examiner has any questions about the present Amendment or anticipates finally rejecting any claim of the present application, a telephone interview is requested.

Respectfully submitted,

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